CLAIMS

A cosmetic formulation comprising at least one pigment of formula (I)

$$R_2$$
 R_1
 R_2
 R_3
 R_4
 R_3

wherein 5

R₁, R₂, R₃ and R₄ independently from each other signify hydrogen; cyano; halogen; CF₃; NH₂; NR₅R₆; NR₅COR₅; COOR₆; CONH₂; CONR₅R₆; OR₆; OCOR₅; SR₅; SOR5; SO2R5; SO2NR5R6; SO2OR5; CHO; Si(R5)3; SO3M; linear or branched C₁-C₃₀alkyl, which can be unsubstituted or substituted by one or more halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; linear or branched C₀-C₃₀alkyleneC₃-C₁₂cycloalkyl, which can be unsubstituted or substituted by one or more halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; linear or branched C₃-C₃₀alkenylene-C₃-C₁₂cycloalkyl, which can be unsubstituted or substituted by one or more halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; linear or branched C₃-C₃₀alkenyl, which can be unsubstituted or substituted by one or more halogen, OH, OR5, SR5, NH2, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; linear or branched C₀-C₃₀alkyleneC₃-C₁₂cycloalkenyl, which can be unsubstituted or substituted by one or more halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; linear or branched C₃-C₃₀alkenylene-C₃-C₁₂cycloalkenyl, which can be unsubstituted or substituted by one or more halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; phenyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₁-C6alkoxy, halogen, cyano or formyl; linear or branched C7-C24aralkyl, which can be unsubstituted or substituted by one or more halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; linear or branched C₈-C₂₄aralkenyl, which can be unsubstituted or substituted by one or more halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆,

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wherein

signifies linear or branched C₁-C₃₀alkyl; C₃-C₃₀-alkenyl; C₃-C₁₂cycloalkyl;

C₆-C₁₄aryl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl, C₁-C₆alkoxy, C₁-C₆thioalkyl or halogen; C₇-C₂₄aralkyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl, C₁-C₆alkoxy, C₁-C₆thioalkyl or halogen or C₈-C₂₄aralkenyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl, C₁-C₆alkoxy, C₁-C₆thioalkyl or halogen,

Signifies hydrogen; linear or branched C₁-C₃₀alkyl; C₃-C₃₀-alkenyl; C₃-

Signifies hydrogen; linear or branched C₁-C₃₀alkyl; C₃-C₃₀-alkenyl; C₃-C₁₂cycloalkyl; C₆-C₁₄aryl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl, C₁-C₆alkoxy, C₁-C₆thioalkyl or halogen; C₇-C₂₄aralkyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl, C₁-C₆alkoxy, C₁-C₆thioalkyl or halogen or C₈-C₂₄aralkenyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl, C₁-C₆alkoxy, C₁-C₆thioalkyl or halogen, and

M signifies hydrogen; a metal atom or an ammonium group, wherein the pigments have a specific surface area (BET) of $6-200~\text{m}^2/\text{g}$, and with the proviso that

- (i) if R₁ is H, then R₂ is not H, C₁-C₁₈alkyl, C₁-C₄alkoxy, halogen, phenyl or SO₃M.
- 2. A cosmetic formulation according to Claim 1, wherein the pigments have a specific surface area (BET) of $8-170~\text{m}^2/\text{g}$.
- 3. A cosmetic formulation according to Claim 1, wherein the pigments have a specific surface area (BET) of $10 150 \text{ m}^2/\text{g}$.
- 4. A cosmetic formulation according to any one of Claims 1 3, wherein

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R₁, R₂, R₃ and R₄ signify independently from each other hydrogen; cyano; halogen; CF₃; SR₅; SOR₅; SO₂R₅; SO₂NR₅R₆; NR₅R₆; COOR₆; CONH₂; CONR₅R₆; OCOR5; linear or branched C1-C18alkyl, which can be unsubstituted or substituted by one or more OR5, SR5, NR5R6 or COOR6; linear or branched C₀-C₂₄alkyleneC₃-C₈cycloalkyl, which can be unsubstituted or substituted by one or more OR5, SR5, NR5R6 or COOR6; linear or branched C₃-C₂₄alkenyleneC₃-C₈cycloalkyl, which can be unsubstituted or substituted by one or more OR₅, SR₅, NR₅R₆ or COOR₆; linear or branched C₃-C₂₄alkenyl, which can be unsubstituted or substituted by one or more OR₅, SR₅, NR₅R₆ or COOR₆; linear or branched C₀-C₂₄alkyleneC₃-C₈cycloalkenyl, which can be unsubstituted or substituted by one or more OR₅, SR₅, NR₅R₆ or COOR₆; linear or branched C₃-C₂₄alkenylene-C₃-C₈cycloalkenyl, which can be unsubstituted or substituted by one or more OR5, SR5, NR₅R₆ or COOR₆; phenyl, which can be unsubstituted or substituted by one or more methyl, methoxy or cyano; or linear or branched C₁-C₁₈alkoxy, which can be unsubstituted or substituted by one or more

halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, or OCOR₅;

 R_5 and R_6 have the meaning as defined in Claim 1.

- 5. A cosmetic formulation according to Claim 4, wherein
- signifies linear or branched C₁-C₁₈alkyl; C₃-C₁₈alkenyl; C₃-C₈cycloalkyl; C₆
 C₁₀aryl, which can be unsubstituted or substituted by one or more C₁-C₈alkyl, C₅
 C₆cycloalkyl or C₁-C₆alkoxy; C₇-C₈aralkyl, which can be unsubstituted or

 substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy; or C₈
 C₁₂aralkenyl, which can be unsubstituted or substituted by one or more C₁
 C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy and preferably

- Signifies hydrogen; linear or branched C₁-C₁₈alkyl; C₃-C₁₈alkenyl; C₃-C₈cycloalkyl; C₆-C₁₀aryl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy; C₇-C₈aralkyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy; or C₈-C₁₂aralkenyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy.
- A cosmetic formulation according to any one of Claims 1 3, wherein 6. R₁, R₂, R₃ and R₄ independently from each other signify hydrogen; cyano; CF₃; SR₅; SO₂NR₅R₆; NR₅R₆; COOR₆; CONH₂; CONR₅R₆; OCOR₅; CI; F; Br; 10 linear or branched C₁-C₁₈alkyl, which can be unsubstituted or ... substituted by one or more OR5, SR5, NR5R6 or COOR6; linear or branched C₀-C₆alkyleneC₃-C₈cycloalkyl, which can be unsubstituted or substituted by one or more OR5, SR5, NR5R6 or COOR6; linear or branched C₃-C₆alkenyleneC₃-C₈cycloalkyl, which can be 15 unsubstituted or substituted by one or more OR5, SR5, NR5R6 or COOR₆; linear or branched C₃-C₆alkenyl, which can be unsubstituted or substituted by one or more OR5, SR5, NR5R6 or COOR₆; linear or branched C₀-C₈alkyleneC₃-C₈cycloalkenyl, which can be unsubstituted or substituted by one or more OR₅, SR₅, 20 NR₅R₆ or COOR₆; linear or branched C₃-C₆alkenylene-C₃-Cacycloalkenyl, which can be unsubstituted or substituted by one or more OR5, SR5, NR5R6 or COOR6; phenyl, which can be unsubstituted or substituted by one or more methyl, methoxy or cyano; or linear or branched C1-C6alkoxy, which can be 25 unsubstituted or substituted by one or more halogen, OH, OR5, SR5,

$$NH_{2}, NR_{5}R_{6}, COOR_{6}, CONR_{5}R_{6} \text{ or OCOR}_{5};$$

$$O = \begin{matrix} R_{6} \\ N - S \\ N - S$$

 R_5

signifies linear or branched C₁-C₆alkyl; C₃-C₆alkenyl; C₃-C₈cycloalkyl; C₆-C₁₀aryl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy; C₇-C₀aralkyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy; or C₈-C₁₂aralkenyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy,

 R_6

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signifies hydrogen; linear or branched C₁-C₆alkyl; C₃-C₆alkenyl; C₃-C₈cycloalkyl; C₆-C₁₀aryl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy; C₇-C₈aralkyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy; or C₈-C₁₂aralkenyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy,

with the proviso that 15

- if R_1 is H, then R_2 is not H, C_1 - C_6 alkyl, C_1 - C_4 alkoxy, Cl, F, Br or phenyl. (i)
- 7. A cosmetic formulation according to any one of Claims 1-3, comprising at least one pigment of formula (la)

$$R_2$$
 R_1
 R_2
 R_1
 R_2
 R_1
 R_2

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wherein

R₁ and R₂ independently from each other signify hydrogen; cyano; halogen; CF₃; NH₂; NR₅R₆; NR₅COR₅; COOR₆; CONH₂; CONR₅R₆; OR₆; OCOR₅; SR₅; SOR₅; SO₂R₅; SO₂NR₅R₆; SO₂OR₅; CHO; Si(R₅)₃; SO₃M; linear or branched C₁-C₃₀alkyl, which can be unsubstituted or substituted by one or more halogen, OH, OR5, SR5, NH2, NR5R6, COOR6, CONR5R6, OCOR5 or SO3M; linear or branched C₀-C₃₀alkyleneC₃-C₁₂cycloalkyl, which can be unsubstituted or substituted by one or more halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; linear or branched C₃-C₃₀alkenylene-C₃-

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C₁₂cycloalkyl, which can be unsubstituted or substituted by one or more halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; linear or branched C₃-C₃₀alkenyl, which can be unsubstituted or substituted by one or more halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; linear or branched C₀-C₃₀alkyleneC₃-C₁₂cycloalkenyl, which can be unsubstituted or substituted by one or more halogen, OH, OR₆, SR₆, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; linear or branched C₃-C₃₀alkenylene-C₃-C₁₂cycloalkenyl, which can be unsubstituted or substituted by one or more halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; phenyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₁-C₆alkoxy, halogen, cyano or formyl; linear or branched C₇-C₂₄aralkyl, which can be unsubstituted by one or more halogen, OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M; linear or branched C₈-C₂₄aralkenyl, which can be unsubstituted or substituted by one or more halogen. OH, OR₅, SR₅, NH₂, NR₅R₆, COOR₆, CONR₅R₆, OCOR₅ or SO₃M;

wherein

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 R_5

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C₆-C₁₄aryl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl, C₁-C₆alkoxy, C₁-C₆thioalkyl or halogen; C₇-C₂₄aralkyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl, C₁-C₆alkoxy, C₁-C₆thioalkyl or halogen or C₈-C₂₄aralkenyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl, C₁-C₆alkoxy, C₁-C₆thioalkyl or halogen, signifies hydrogen; linear or branched C₁-C₃₀alkyl; C₃-C₃₀-alkenyl; C₃-C₁₂cycloalkyl; C₆-C₁₄aryl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl, C₁-C₆alkoxy, C₁-C₆thioalkyl or halogen; C₇-C₂₄aralkyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl, C₁-C₆alkoxy, C₁-C₆thioalkyl or halogen or C₈-

signifies linear or branched C₁-C₃₀alkyl; C₃-C₃₀-alkenyl; C₃-C₁₂cycloalkyl;

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 C_{24} aralkenyl, which can be unsubstituted or substituted by one or more C_1 - C_6 alkyl, C_5 - C_6 cycloalkyl, C_1 - C_6 alkoxy, C_1 - C_6 thioalkyl or halogen, and M signifies hydrogen; a metal atom or an ammonium group, with the proviso that

- (i) if R₁ is H, then R₂ is not H, C₁-C₁8alkyl, C₁-C₄alkoxy, halogen, phenyl or SO₃M.
- A cosmetic formulation according to Claim 7, wherein

R₁ and R₂ independently from each other signify hydrogen; cyano; CF₃; SR₅; SO₂NR₅R₆; NR₅R₆; COOR₆; CONH₂; CONR₅R₆; OCOR₅; CI; F; Br; linear or branched C₁-10 .C₁₈alkyl, which can be unsubstituted or substituted by one or more OR₅, SR₅, NR₅R₆ or COOR₆; linear or branched C₀-C₆alkyleneC₃-C₈cycloalkyl, which can be unsubstituted or substituted by one or more OR5, SR5, NR5R6 or COOR6; linear or branched C₃-C₆alkenyleneC₃-C₈cycloalkyl, which can be unsubstituted or substituted by one or more OR5, SR5, NR5R6 or COOR6; linear or branched C3-15 C₆alkenyl, which can be unsubstituted or substituted by one or more OR₅, SR₅, NR₅R₆ or COOR₆; linear or branched C₀-C₆alkyleneC₃-C₈cycloalkenyl, which can be unsubstituted or substituted by one or more OR5, SR5, NR5R6 or COOR6; linear or branched C3-C6alkenylene-C3-C8cycloalkenyl, which can be unsubstituted or substituted by one or more OR5, SR5, NR5R6 or COOR6; phenyl, 20 which can be unsubstituted or substituted by one or more methyl, methoxy or cyano; linear or branched C1-C6alkoxy, which can be unsubstituted or substituted by one or more halogen, OH, OR5, SR5, NH2, NR5R6, COOR6, CONR5R6 or

OCOR₅;
$$P_{6} = P_{1} = P_{1} = P_{1} = P_{2} = P_{1} = P_{2} = P_{$$

R₅ signifies linear or branched C₁-C₆alkyl; C₃-C₆alkenyl; C₃-C₈cycloalkyl; C₆-C₁₀aryl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy; C₇-C₈aralkyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy; or C₈-

 C_{12} aralkenyl, which can be unsubstituted or substituted by one or more C_{1-} C_{6} alkyl, C_{5} - C_{6} cycloalkyl or C_{1-} C₆alkoxy,

signifies hydrogen; linear or branched C₁-C₆alkyl; C₃-C₆alkenyl; C₃-C₈cycloalkyl; C₆-C₁₀aryl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy; C₇-C₈aralkyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy; or C₈-C₁₂aralkenyl, which can be unsubstituted or substituted by one or more C₁-C₆alkyl, C₅-C₆cycloalkyl or C₁-C₆alkoxy,

with the proviso that

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- 10 (i) if R₁ is H, then R₂ is not H, C₁-C₁₈alkyl, C₁-C₄alkoxy, Cl, F, Br or phenyl.
 - 9. A cosmetic formulation according to any of Claims 1-8 comprising
 - a) from 0.0001 to 50 % by weight, preferably from 0.0001 to 25 % by weight, based on the total weight of the preparation, of at least one pigment of formula (I), and
 - b) from 50 to 99.9999 % by weight, preferably from 75 to 99.9999 % by weight, based on the total weight of the preparation, of a cosmetically suitable carrier.
 - 10. A cosmetic preparation or formulation according to any one of claims 1 to 9, which is in the form of a stick comprising up to 99.9999 % by weight of fatty components.
 - 11. A cosmetic preparation or formulation according to any one of claims 1 to 9, which is in the form of an anhydrous or aqueous ointment or cream.
- 12. A cosmetic preparation or formulation according to any one of claims 1 to 9, which is in the form of a water-in-oil emulsion or in the form of an oil-in-water emulsion comprising from 1 to 98.8 % by weight of the fatty phase, from 1 to 98.8 % by weight of the aqueous phase and from 0.2 to 30 % by weight of an emulsifier, in each case based on the total weight.
- 30 13. A cosmetic preparation or formulation according to any one of claims 1 to 9, which is in the form of a powder and comprises an inorganic or organic filler, such as talc, zinc stearate, mica, kaolin, nylon powders, polyethylene powders, Teflon, starch, boron nitride, microspheres of copolymers, such as Expancel, Polytrap, silicone resin

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microbeads, polyethylene powder or polyamide powder, as well as adjuvants, such as binders or colourants.

- 14. A cosmetic preparation or formulation according to any one of claims 1 to 9, which is in the form of a nail varnish and comprises from 0.1 to 5 % by weight of the pigment in a varnish base.
 - 15. A cosmetic preparation or formulation according to any one of claims 1 to 9, which is in the form of a shampoo, a cream or a gel for colouring the hair that is composed of the basic substances conventionally employed in the cosmetics industry.
 - **16.** A cosmetic preparation or formulation according to any one of claims 1 to 15, which additionally comprises conventional cosmetic constituents, such as perfumes, antioxidants, preservatives and UV filters.